

ALKALINE ELECTROCHEMICAL BATTERY SUBSTANTIALLY CONTAINING NO MERCURY**Publication number:** JP2004031369**Publication date:** 2004-01-29**Inventor:** GETZ DALE R; NARDI JOHN C; SCARR ROBERT F**Applicant:** EVEREDY BATTERY CO INC**Classification:**

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PROBLEM TO BE SOLVED: To provide an alkaline electrochemical battery substantially containing no mercury, and causing no leakage of the various components of the electrochemical battery by preventing gas from being produced in storage after discharge.

SOLUTION: This alkaline electrochemical battery has a zinc-contained negative electrode and an alkaline electrolyte. In this battery containing mercury of less than 50 ppm by weight and having zinc negative electrode gel having a corrosion-inhibitor, the zinc negative electrode gel comprising zinc powder of 63 wt.%, a binder of 0.5 wt.% and a potassium hydroxide electrolyte solution which is a 37 % potassium hydroxide electrolyte solution of 36.5 wt.% while containing a zinc oxide of 42.5 gram per one liter contains the zinc having gas generating characteristics after no discharge or low-partial discharge, which shows a relative volume expansion coefficient of less than 25 %, after making the battery discharge for 161 minutes up to the discharge depth of 15 % at 2.88A, and holding it for 24 hours at 71[deg.]C after discharge.

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